



**Course Title:** Sensors, Measurements & Instrumentation Lab

**Following documents are available in Course File.**

S.No.	Points	Yes	No
1	Institute and Department Vision and Mission Statements	✓	
2	PEO & PO Mapping	✓	
3	Academic Calendar	✓	
4	Subject Allocation Sheet	✓	
5	Class Time Table, Individual Timetable (Single Sheet)	✓	
6	Syllabus Copy	✓	
7	Course Handout	✓	
8	CO-PO Mapping	✓	
9	CO-Cognitive Level Mapping	✓	
10	Lecture Notes		
11	Tutorial Sheets With Solution		
12	Soft Copy of Notes/Ppt/Slides		
13	Sessional Question Paper and Scheme of Evaluation		
14	Best, Average and Weak Answer Scripts for Each Sessional Exam. (Photocopies)		
15	Assignment Questions and Solutions		
16	Previous University Question Papers		
17	Result Analysis	✓	
18	Feedback From Students	✓	
19	Course Exit Survey		
20	CO Attainment for All Mids.		
21	Remedial Action.		

**Course Instructor / Course Coordinator  
(Name)**

**Course Instructor / Course Coordinator  
(Signature)**



## **VISION AND MISSION**

### **Vision of the Institute**

To be among the best of the institutions for engineers and technologists with attitudes, skills and knowledge and to become an epicentre of creative solutions.

### **Mission of the Institute**

To achieve and impart quality education

To impart technical knowledge and skills required to succeed in life, career and help society to achieve self sufficiency.

### **Mission of the Department**

To become an internationally leading department for higher learning.

To build upon the culture and values of universal science and contemporary education.

To be a center of research and education generating knowledge and technologies which lay groundwork in shaping the future in the fields of electrical and electronics engineering.

To develop partnership with industrial, R&D and government agencies and actively participate in conferences, technical and community activities.



## PEO'S AND PO'S MAPPINGS

Programme Educational Objectives (PEOs)	Programme Outcomes (POs)											
	1	2	3	4	5	6	7	8	9	10	11	12
1	M	M	-	-	H	-	-	H	H	-	H	H
2	-	-	M	M	H	H	H	-	-	-	-	H
3	-	-	-	-	H	H	M	M	M	M	H	H
4	-	-	-	M	M	H	M	H	H	-	M	H



**ACADEMIC CALENDAR**

GRIET/DAA/1H/G/17-18

03 August 2017

**Academic Year 2017-18**

**II & III B.TECH – FIRST SEMESTER**

S. No.	EVENT	PERIOD	DURATION
1	1 <sup>st</sup> Spell of Instructions	03-07-2017 to 13-09-2017	10 Weeks 3 Days
2	1 <sup>st</sup> Mid-term Examinations	14-09-2017 to 16-09-2017	3 Days
3	2 <sup>nd</sup> Spell of Instructions	18-09-2017 to 01-11-2017	6 Weeks 3 Days
4	2 <sup>nd</sup> Mid-term Examinations	02-11-2017 to 04-11-2017	3 Days
5	Preparation	06-11-2017 to 11-11-2017	1 Week
6	<b>End Semester Examinations (Theory/Practicals) Regular/Supplementary</b>	<b>13-11-2017 to 16-12-2017</b>	<b>5 Weeks</b>
7	Commencement of Second Semester, A.Y 2017-18	18-12-2017	

**II & III B.TECH – SECOND SEMESTER**

S. No.	EVENT	PERIOD	DURATION
1	1 <sup>st</sup> Spell of Instruction	18-12-2017 to 10-02-2018	8 Weeks
2	1 <sup>st</sup> Mid-term Examinations	12-02-2018 to 14-02-2018	3 Days
3	2 <sup>nd</sup> Spell of Instruction	15-02-2018 to 14-04-2018	<b>8 Weeks</b> 3 Days
4	2 <sup>nd</sup> Mid-term Examinations	16-04-2018 to 18-04-2018	3 Days
5	Preparation	19-04-2018 to 28-04-2018	1 Week 3 Days
6	<b>End Semester Examinations (Theory/Practicals) Regular</b>	30-04-2018 to 19-05-2018	3 Weeks
7	<b>Supplementary and Summer Vacation</b>	<b>21-05-2018 to 30-06-2018</b>	<b>6 Weeks</b>
8	Commencement of First Semester, A.Y 2018-19	02-07-2018	

- Advanced Supplementary examinations for I BTech II Sem (GR15 Regulations) will be held from 30-08-2017 to 11-09-2017.

Copy to Director, Principal, Vice Principal, DOA, DOE, Balaji Kumar, DCGC, All HODs



**TIME TABLES**

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

**IIIBTechEEEEB-I Semester**



**DEPARTMENT OF ELECTRICAL AND ELECTRONICS**

**ENGINEERING**

**GRIET/PRIN/06/G/01/18-19**

**BTech - EEE - A**

**Wef : 02 July 2018**

**III year - I Semester**

DAY/ HOUR	9:00 - 9:45	9:45 - 10:30	10:30 - 11:15	11:15- 12:00	12:00- 12:30	12:30 - 1:20	1:20 - 2:10	2:10 - 3:00	Room No	
<b>MONDAY</b>	PE		SWE		<b>BREAK</b>	MC	PE	PE	Theory	4501
<b>TUESDAY</b>	SMI Lab / PE Lab A1 / A2					SWE	PE	PE	Lab	SMI Lab - 4507 MC Lab - 4505 PE Lab - 4405
<b>WEDNESDAY</b>	PTS		SWE			MC	MC	EMI	Class Incharge:	M Lohita
<b>THURSDAY</b>	PE Lab / MC Lab A1 / A2					PTS	PTS	EMI		
<b>FRIDAY</b>	MC Lab / SMI Lab A1 / A2					EMI	EMI	MC		
<b>SATURDAY</b>	MC		PTS			SWE	EMI	EMI		
Subject Code	Subject Name		Faculty Code	Faculty name		Almanac				
GR15A3016	Power Transmission System		VVRR/MP	V Vijaya Rama Raju/M Prashanth		1 <sup>st</sup> Spell of Instructions		02-07-2018 to 01-09-2018		
GR15A2055	Microcontrollers		PK	P Prashanth		1 <sup>st</sup> Mid-term Examinations		03-09-2018 to 05-09-2018		
GR15A3018	Power Electronics		Dr TSK	Dr T Suresh Kumar		2 <sup>nd</sup> Spell of Instructions		06-09-2018 to 24-10-2018		
GR15A3017	Electrical Measurements and Instrumentation		UVL	U Vijaya Lakshmi		2 <sup>nd</sup> Mid-term Examinations		25-10-2018 to 27-10-2018		
GR15A3152	Solar & Wind Energy Systems		PSVD/Dr JP	P Sri Vidya Devi/Dr J Praveen		Preparation		29-10-2018 to 06-11-2018		
GR15A3019	Sensors/Measurements and Instrumentation Lab		PSVD/PS	P Sri Vidya Devi /P Sirisha		End Semester Examinations (Theory/ Practicals) Regular / Supplementary		08-11-2018 to 08-12-2018		
GR15A3020	Power Electronics Lab		PPK/MRE	P Praveen Kumar/M Rekha						
GR15A2059	Microcontrollers Lab		RAK/DKK	R Anil Kumar/ D Karuna Kumar		Commencement of Second Semester, A.Y		12/10/2018		

**HOD**

**Co-ordinator**

**DAA**



DEPARTMENT OF ELECTRICAL AND ELECTRONICS

ENGINEERING

GRIET/PRIN/06/G/01/18-19

BTech - EEE - B

Wef : 02 July 2018

Wef

III year - I Semester

DAY/ HOUR	9:00 - 9:50	9:50 - 10:40	10:40 - 11:30	11:30 - 12:00	12:00- 12:45	12:45- 1:30	1:30 - 2:15	2:15 - 3:00	Room No	
MONDAY	PE	PE	MC	BREAK	SMI Lab / PE Lab B1/ B2				Theory	4404
TUESDAY	PE	PE	MC		MCLab / SMI Lab B1/ B2				Lab	SMI Lab - 4507 MC Lab - 4505 PE Lab - 4405
WEDNESDAY	PE	PE	PTS		EMI	SWE				
THURSDAY	PTS	PTS	EMI		SWE		MC			
FRIDAY	PTS	PTS	EMI		MC		SWE			
SATURDAY	PTS	EMI	EMI		PELab / MC Lab B1/ B2				Class Incharge :	M Lohita
Subject Code	Subject Name			Faculty Code	Faculty name			Almanac		
GR15A3016	Power Transmission System			VVRR/MP	V Vijaya Rama Raju/M Prashanth			1 <sup>st</sup> Spell of Instructions		
GR15A2055	Microcontrollers			PK	P Prashanth			1 <sup>st</sup> Mid-term Examinations		
GR15A3018	Power Electronics			DKK	D Karuna Kumar			2 <sup>nd</sup> Spell of Instructions		
GR15A3017	Electrical Measurements and Instrumentation			UVL	U Vijaya Lakshmi			2 <sup>nd</sup> Mid-term Examinations		
GR15A3152	Solar & Wind Energy Systems			PSVD/Dr JP	P Sri Vidya Devi/Dr J Praveen			Preparation		
GR15A3019	Sensors/Measurements and Instrumentation Lab			UVL/PS	U Vijaya Lakshmi/ P Sirisha			End Semester Examinations (Theory/ Practicals) Regular / Supplementary		
GR15A3020	Power Electronics Lab			SN/MRE	Syed Sarfaraz Nawaz/ M Rekha					
GR15A2059	Microcontrollers Lab			PK/DKK	P Prashanth Kumar/ D Karuna Kumar			Commencement of Second Semester, A.Y		

HOD

Co-ordinator

DAA



**Sensors/Measurements&Instrumentation Lab syllabus**

**Academic Year** :2018-2019

**Semester** : I

**Name of the Program: B.Tech EEE.** **Year: III Section: A & B**

**Course/Subject: Sensors/Measurements&InstrumentationLab** **Course code:GR143019**

**Name of the Faculty: P.Srividya Devi, U.Vijayalakshmi, P.Sirisha(Asst.Prof).** **Dept.: EEE.**

S. No.	Description	Total No. Of Periods
1.	VOLTAGE AND CURRENT DETECTION CIRCUITRY	3
2.	TEMPERATURE AND PRESSURE DETECTION CIRCUITRY	3
3.	WATER FLOW AND LEVEL DETECTION CIRCUITRY	3
4.	POSITION INDICATION (LVDT,POT)	3
5.	PROXIMITY SENSORS(INDUCTIVE)	3
6.	DISTANCE(ULTRASONIC) SENSOR	3
7.	LIGHT SENSOR	3
8.	HUMIDITY SENSOR	3
9.	RAINFALL SENSOR& SOIL MOISTURE SENSOR	3
10.	MOTION SENSOR	3



**Department of Electrical & Electronics Engineering**

11.	MEASUREMENT OF POWER AND ENERGY	6
12.	ACCELEROMETER SENSOR	6
13.	MEASUREMENT OF RESISTANCE BY BRIDGES(WHEATSTONE BRIDGE)	6
14.	MEASUREMENT OF INDUCTANCE BY BRIDGES(MAXWELL'S BRIDGE)	6
15.	MEASUREMENT OF CAPACITANCE BY BRIDGES(DE SAUTY'S BRIDGE)	6

Total No. of Instructional periods available for the course: ...66... Periods





## **COURSE OBJECTIVES**

**Academic Year** :2018-2019

**Semester** : I

**Name of the Program: B.Tech EEE. Year: III Section: A & B**

**Course/Subject: Sensors/Measurements&InstrumentationLab Course code:GR143019**

**Name of the Faculty: P.Srividya Devi, U.Vijayalakshmi, P.Sirisha(Asst.Prof). Dept.: EEE.**

On completion of this Subject/Course the students shall be able:

<b>S.No</b>	<b>Objectives</b>
1	Able to measure resistance, capacitance, inductance, power, energy etc..
2	Calibrate measuring instruments using software tool LabVIEW.
3	The student can balance bridges through interfacing LabVIEW.
4	The student can innovate a measuring kit using their knowledge in course.
5	Ability to calibrate and test single phase energy meters, PMMC, ammeters, voltmeters.
6	Ability to design a circuit with Anderson bridge, Kelvin bridge.
7	Ability to calibrate LPF wattmeter by phantom load.

Signature of HOD

Signature of faculty

Date:

Date:



## **COURSE OUTCOMES**

**Academic Year** :2018-2019

**Semester** : I

**Name of the Program: B.Tech EEE.**

**Year: III Section: A & B**

**Course/Subject: Sensors/Measurements&InstrumentationLab**

**Course code:GR143019**

**Name of the Faculty: P.Srividya Devi, U.Vijayalakshmi, P.Sirisha(Asst.Prof). Dept.: EEE.**

The expected outcomes of the Course/Subject are:

<b>S.No</b>	<b>Outcomes</b>
1	Have knowledge, to demonstrate the designing and conducting experiments, to analyze and interpret data.
2	Provide the ability to visualize and work on laboratory and multidisciplinary tasks.
3	Measurement of R, L, C, Voltage, Current, Power factor, Power, Energy
4	Measurement of Magnetic Circuits.
5	Measurement uses PMMC and Moving Iron Type Instruments
6	Measurement of power using LPF and UPF methods.
7	Ability to balance AC Bridges to find unknown values.

Signature of HOD

Signature of faculty

Date:

Date:



## **GUIDELINES TO STUDY THE COURSE/SUBJECT**

**Academic Year** : 2018-2019

**Semester** : I

Name of the Program: B.Tech ..... Year: ..... III ..... Section: A/B

Course/Subject: ..... Sensors/Measurements & Instrumentation Lab Course Code: ... **GR14A3020**

Name of the Faculty: P.Srividya Devi, U.Vijayalakshmi, P.Sirisha (Asst.Prof). **Dept.: EEE.**

Guidelines to study the Course/ Subject: .....

### **Course Design and Delivery System (CDD):**

The Course syllabus is written into number of learning objectives and outcomes.

These learning objectives and outcomes will be achieved through lectures, assessments, assignments, experiments in the laboratory, projects, seminars, presentations, etc.

Every student will be given an assessment plan, criteria for assessment, scheme of evaluation and grading method.

The Learning Process will be carried out through assessments of Knowledge, Skills and Attitude by various methods and the students will be given guidance to refer to the textbooks, reference books, journals, etc.

The faculty be able to –

Understand the principles of Learning

Understand the psychology of students

Develop instructional objectives for a given topic

Prepare course, unit and lesson plans

Understand different methods of teaching and learning

Use appropriate teaching and learning aids

Plan and deliver lectures effectively

Provide feedback to students using various methods of Assessments and tools of Evaluation

Act as a guide, advisor, counselor, facilitator, motivator and not just as a teacher alone

Signature of HOD

Signature of faculty Date:

Date:



**Department of Electrical & Electronics Engineering**  
**COURSESCHEDULE**

**Academic Year** :2018-2019

**Semester** : I

**Name of the Program: B.Tech EEE.**

**Year: III Section: A & B**

**Course/Subject: Sensors/Measurements&InstrumentationLab**

**Course code:GR143019**

**Name of the Faculty: P.Srividya Devi, U.Vijayalakshmi, P.Sirisha(Asst.Prof). Dept.: EEE.**

TheSchedule for thewhole Course/ Subject is:

S. No.	Description	Total No. Of Periods
1.	VOLTAGE AND CURRENT DETECTION CIRCUITRY	3
2.	TEMPERATURE AND PRESSURE DETECTION CIRCUITRY	3
3.	WATER FLOW AND LEVEL DETECTION CIRCUITRY	3
4.	POSITION INDICATION (LVDT,POT)	3
5.	PROXIMITY SENSORS(INDUCTIVE)	3
6.	DISTANCE(ULTRASONIC) SENSOR	3
7.	LIGHT SENSOR	3
8.	HUMIDITY SENSOR	3
9.	RAINFALL SENSOR& SOIL MOISTURE SENSOR	6
10.	MOTION SENSOR	6



**Department of Electrical & Electronics Engineering**

11.	MEASUREMENT OF POWER AND ENERGY	6
12.	ACCELEROMETER SENSOR	6
13.	MEASUREMENT OF RESISTANCE BY BRIDGES(WHEATSTONE BRIDGE)	6
14.	MEASUREMENT OF INDUCTANCE BY BRIDGES(MAXWELL'S BRIDGE)	6
15.	MEASUREMENT OF CAPACITANCE BY BRIDGES(DE SAUTY'S BRIDGE)	6

Total No. of Instructional periods available for the course:....66.... Periods



**ILLUSTRATIVE VERBS FOR STATING INSTRUCTIONAL OBJECTIVES**

These verbs can also be used while framing questions for Continuous Assessment Examinations as well as for End-Semester (final) Examinations

**ILLUSTRATIVE VERBS FOR STATING GENERAL OBJECTIVES/OUTCOMES**

Know	Understand	Analyze	Generate
Comprehend	Apply	Design	Evaluate

**ILLUSTRATIVE VERBS FOR STATING SPECIFIC OBJECTIVES/OUTCOMES:**

**A. COGNITIVE DOMAIN (KNOWLEDGE)**

1	2	3	4	5	6
Knowledge	Comprehension Understanding	Application of knowledge & comprehension	Analysis Of whole w.r.t. its constituents	Synthesis	Evaluation Judgment
Define	Convert	Change	Breakdown	Categorize	Appraise
Identify	Defend	Compute	Differentiate	Combine	Compare
Label	Describe(a	Demonstrate	Discriminate	Compose	Conclude
List	Procedure)	Deduce	Distinguish	Compose	Contrast
March	Distinguish	Manipulate	Separate	Create	Criticize
Reproduce	Estimate	Modify	Subdivide	Devise	Justify
Select	Explain why/how	Predict		Design	Interpret
State	Extend	Prepare		Generate	Support
	Generalize	Relate		Organize	
	Give examples	Show		Plan	
	Illustrate	Solve		Rearrange	
	Infer			Reconstruct	
	Summarize			Reorganize	
				Revise	

**B. AFFECTIVE DOMAIN (ATTITUDE)**

**C. PSYCHOMOTOR DOMAIN (SKILLS)**

Adhere	Resolve	Bend	Dissect	Insert	Perform	Straighten
Assist	Select	Calibrate	Draw	Keep	Prepare	Strengthen
Attend	Serve	Compress	Extend	Elongate	Remove	Time Conduct
Change	Share	Feed	Limit	Replace	Transfer	Connect
Develop		Manipulate	Report	Type	Convert	Grow
Help		Move Precisely	Reset	Weigh	Decrease	Increase
Influence		Set				Paint



## SCHEDULE OF INSTRUCTIONS COURSEPLAN

**Academic Year** :2018-2019

**Semester** : I

**Name of the Program:** B.Tech EEE.

**Year:** III **Section:** A & B

**Course/Subject:** Sensors/Measurements&InstrumentationLab

**Course code:**GR143019

**Name of the Faculty:** P.Srividya Devi, U.Vijayalakshmi, P.Sirisha(Asst.Prof). **Dept.:** EEE.

Expt.No.	No. of Periods	Topics/Sub-Topics	Objectives &Outcomes Nos.	References (Text Book, Journal...) Page Nos.: to_____
1.	3	VOLTAGE AND CURRENT DETECTION CIRCUITRY	1,2 &5,7	Lab Manual
2.	3	TEMPERATURE AND PRESSURE DETECTION CIRCUITRY	1,2 &5,7	Lab Manual
3.	3	WATER FLOW AND LEVEL DETECTION CIRCUITRY	1,2 &5,7	Lab Manual
4.	3	POSITION INDICATION (LVDT,POT)	1,2 &5,7	Lab Manual
5.	3	PROXIMITY SENSORS(INDUCTIVE)	1,2 &5,7	Lab Manual
6.	3	DISTANCE(ULTRASONIC) SENSOR	1,2 &5,7	Lab Manual
7.	3	LIGHT SENSOR	1,2 &5,7	Lab Manual
8.	3	HUMIDITY SENSOR	1,2 &5,7	Lab Manual



**Department of Electrical & Electronics Engineering**

9.	3	RAINFALL SENSOR& SOIL MOISTURE SENSOR	2 &1,4,6	Lab Manual
10.	3	MOTION SENSOR	2 &1,4,6	Lab Manual
11.	6	MEASUREMENT OF POWER AND ENERGY	2 &1,4,6	Lab Manual
12.	6	ACCELEROMETER SENSOR	2 &1,4,6	Lab Manual
13.	6	MEASUREMENT OF RESISTANCE BY BRIDGES(WHEATSTONE BRIDGE)	2 &1,4,6	Lab Manual
14.	6	MEASUREMENT OF INDUCTANCE BY BRIDGES(MAXWELL'S BRIDGE)	2,3 & 1,2,4,6	Lab Manual
15.	6	MEASUREMENT OF CAPACITANCE BY BRIDGES(DE SAUTY'S BRIDGE)	2 &2,6	Lab Manual

Signature ofHOD

Date:

Signature offaculty

Date:





### COURSE COMPLETION STATUS

Academic Year :2018-2019

Semester : I

Name of the Program: B.Tech EEE.

Year: III Section: A & B

Course/Subject: Sensors/Measurements&InstrumentationLab

Course code:GR143019

Name of the Faculty: P.Srividya Devi,U.Vijayalakshmi,P.Sirisha(Asst.Prof). Dept.: EEE.

Actual Date of Completion & Remarks, if any

Experiment	Remarks	No. of Objectives Achieved	No. of Outcomes Achieved
1	VOLTAGE AND CURRENT DETECTION CIRCUITRY	1,2	5,7
2	TEMPERATURE AND PRESSURE DETECTION CIRCUITRY	1,2	5,7
3	WATER FLOW AND LEVEL DETECTION CIRCUITRY	1,2	5,7
4	POSITION INDICATION (LVDT,POT)	1,2	5,7
5	PROXIMITY SENSORS(INDUCTIVE)	1,2	5,7
6	DISTANCE(ULTRASONIC) SENSOR	1,2	5,7
7	LIGHT SENSOR	1,2	5,7
8	HUMIDITY SENSOR	1,2	5,7
9	RAINFALL SENSOR& SOIL MOISTURE SENSOR	2	1,4,6
10	MOTION SENSOR	2	1,4,6
11	MEASUREMENT OF POWER AND ENERGY	2	1,4,6
12	ACCELEROMETER SENSOR	2	1,4,6
13	MEASUREMENT OF RESISTANCE BY BRIDGES(WHEATSTONE BRIDGE)	2	1,4,6
14	MEASUREMENT OF INDUCTANCE BY BRIDGES(MAXWELL'S BRIDGE)	2,3	1,2,4,6
15	MEASUREMENT OF CAPACITANCE BY BRIDGES(DE SAUTY'S BRIDGE)	2	2,6

Signature of HOD

Signature of faculty

Date:

Date:



## **EVALUATION STRATEGY**

**Academic Year** : 2018-2019

**Semester** : I

**Name of the Program:** B.Tech EEE.

**Year: III Section: A & B**

**Course/Subject:** Sensors/Measurements & Instrumentation Lab

**Course code:** GR143019

**Name of the Faculty:** P.Srividya Devi, U.Vijayalakshmi, P.Sirisha (Asst.Prof). **Dept.:** EEE.

### **1. TARGET:**

A) Percentage for pass: **100%**

### **2. COURSE PLAN & CONTENT DELIVERY**

(Please write how you intend to cover the contents: i.e., coverage of Units/Lessons by lectures, design, exercises, solving numerical problems, demonstration of models, model preparation, experiments in the Lab or by assignments, etc.)

### **3. METHOD OF EVALUATION**

3.1  Daily Attendance

3.2  Lab Record and Observation

3.3  Projects

3.4  Viva Voce

3.5  Internal Examination

4. List out any new topic(s) or any innovation you would like to introduce in teaching the subjects in this Semester.

Signature of HOD

Signature of faculty

Date:

Date:



**GOKARAJU RANGARAJU**  
INSTITUTE OF ENGINEERING AND TECHNOLOGY

**Department of Electrical & Electronics Engineering**

## **Result Analysis**

**B.Tech EEE IIIYEAR I SEM RESULT ANALYSIS OF 2014-2018 BATCH**

**ACADEMIC YEAR 2018-2019 TOTAL. NO. OF STUDENTS REGISTERED = 142**

**Overall pass = 140/142 (98.6%)**

**HOD,EEE**



**FEEDBACK OF FACULTY BY STUDENTS**

DEPT:EEE

YEAR:III B-TECH

SEMESTER :I

ACADEMIC YEAR:2018-19

06.09.2018

S.NO	FACULTY ID	FACULTY NAME	SUBJECT NAME	DEPT	NO. OF SECTIONS	FEEDBACK 2 (4 POINTS) (AVG OF ALL SECTIONS)
1	361	V.Vijaya Rama Raju	Power Transmission System	EEE	2	3.16
2	1279	M Prashanth	Power Transmission System	EEE	2	3.16
3	1055	P Prashanth Kumar	Microcontrollers	EEE	2	3.11
4	1494	Dr T Suresh Kumar	Power Electronics	EEE	1	3.38
5	760	D Karuna Kumar	Power Electronics	EEE	1	3.04
6	692	U Vijaya Lakshmi	Electrical Measurements and Instrumentation	EEE	2	3.31
7	931	P Sri Vidya Devi	Solar & Wind Energy Systems	EEE	2	3.34
9	931	P Sri Vidya Devi	Sensors/Measurements and Instrumentation Lab	EEE	1	3.15
10	692	U Vijaya Lakshmi	Sensors/Measurements and Instrumentation Lab	EEE	1	3.15
11	934	P Sirisha	Sensors/Measurements and Instrumentation Lab	EEE	2	3.17
12	695	Syed Sarfaraz Nawaz	Power Electronics Lab	EEE	1	3.51
13	933	M Rekha	Power Electronics Lab	EEE	2	3.29
14	609	P Praveen Kumar	Power Electronics Lab	EEE	1	3.21
15	657	R. Anil Kumar	Power Electronics Lab	EEE	1	3.39
16	760	D Karuna Kumar	Microcontrollers Lab	EEE	2	3.27
17	1055	P Prashanth Kumar	Microcontrollers Lab	EEE	1	3.21

Signature of HOD